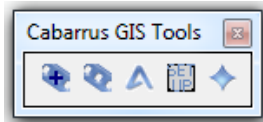# Cabarrus County Address Maintenance

Addresses are maintained in Cabarrus County by the Addressing Coordinator, and by planning staff in the City of Concord and the City of Kannapolis. Addresses are maintained in two databases, the cabarrusgis SDE database and the AddressRepository database. Address are maintained using the Cabarrus GIS Tools addressing tools extension for ArcGIS that was created by Mobile 311 (Withers and Revenal). This extension has several tools that are used to maintain data.

Add Centerline – This tool is used to create new centerlines.

Edit Centerline – This is used to edit existing centerlines.

Add/Edit Centerline – This tool is used to create new address points and edit the attributes of existing points.

Setup Cabarrus GIS Tool – This opens the setup dialog where you load the license file and configure the AddressRepository database connection.

Assign All Addresses to a Single Centerline – This tool allows you to select multiple address points and then assign them all to one centerline, rather than having to select each address individually.

There are two feature classes in the cabarrusgis database that are updated by the addressing toolset. These feature classes are StreetID and AddressLocation. The addressing toolset creates and updates the geometry of the feature classes and populates the id fields of each feature class. Below is an explanation of the fields that are maintained in the GIS database.

StreetID

SEGID	Unique id for street centerline segment. Key field used to join the feature class to AddressRepository data via the spatial view.
STNAMEFK	Unique id for street name.

AddressLocations

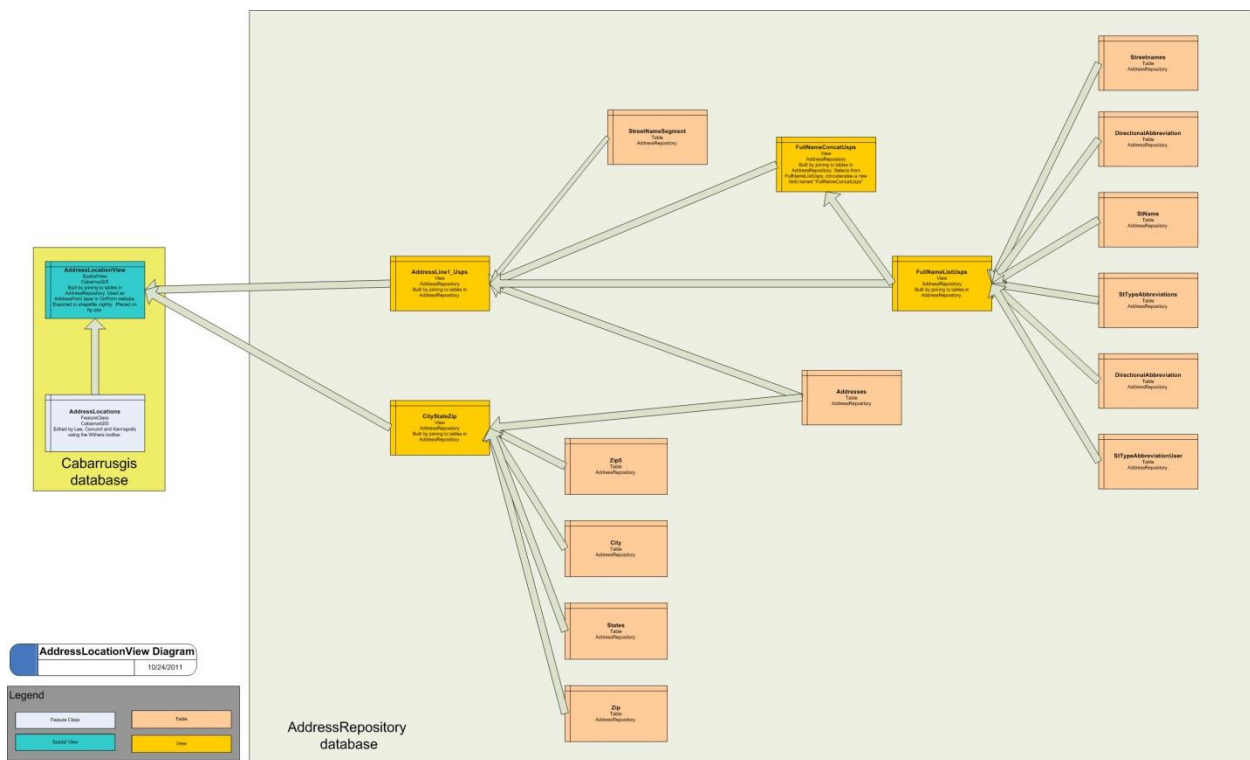|	
ADDR_GID	Id for address point.
ADDRFK	Unique id for address point. Key field used to join the feature class to AddressRepository data via the spatial view.
STNAMEFK	Unique id for street name. Populated from the street centerline and used to tie the address point to a street centerline.

10/25/2011

These are the only fields that are maintained in the cabarrusgis database.   All the other attribute fields are maintained in the AddressRepository database via Cabarrus GIS Tools addressing toolset. The addressing toolset updates the Addresses, LocationDescription, Ranges, StreetnamesSegment, StName, and StreetNames tables.

These are not the only tables in the AddressRepository database. These are simply the tables that are actively edited by the addressing toolset.

Display

In order to display this attribute information in GIS, we use the unique id fields to join tables and create spatial views. There are two main spatial views that are created in the cabarrusgis database; AddressLocationView and StreetCenterlines.

To create the AddressLocationView spatial view we join the AddressLocation feature class to views and tables in the AddressRepository database on the ADDRFK field. Below is a basic diagram of the views and tables involved in creating the AddressLocationView.

The StreetCenterlines spatial view is created in the same way by joining the StreetID feature class to the AddressRepository database via the SEGID field.

10/25/2011

Editing Process

For database maintenance purposes, Cabarrus County uses versioned editing of its GIS data. The address editors in Cabarrus County, Concord and Kannapolis all edit the planning version of the cabarrusgis database. This version is reconciled and posted to the default version every night, then compressed. The compression process pushes the edits that are in the delta tables in the database into the base tables of the feature classes so that they can be displayed in the spatial views.

Therefore when a new address point or street centerline is created or modified the changes will only be visible outside the planning version the next day. Most desktop users and online GIS users will see the changes the day after they are made.

Automated Processes

Cabarrus County and the City of Concord both have nightly processes that are part of the workflow of several departments and require that address and street centerline data is accurate and centralized.

Cabarrus County Jobs

1) Reconcile and Post - 7 pm – This job reconciles and posts the edits from the planning version to the default version of the database.
2) Nightly Compress - 11 pm – compresses the edits in the database from the delta tables to the base tables so that the spatial views will display the edits. This job is dependent on all users being out of the database at the time that it runs. The Cabarrus County GIS users close out of their maps at the end of each day, and we have jobs in place to stop our GIS map services at the time that this job runs. If there are any users connected to the database, the database will not compress completely and all of the edits will not be visible in GIS.
3) Shapefile jobs - 8 pm and 10 pm – Cabarrus County have several jobs that export shapefiles on a nightly basis. These shapefiles are available for download from the County's website and are used by the Cabarrus County Sheriff's department and Kannapolis PD. If the Nightly Compress job does not run successfully, the shapefiles that these departments receive will not be accurate.
4) Address/Parcel intersect - 9 pm – this job intersects the AddressLocationView spatial view with parcel data to create a new feature class that has both the physical address and property ID numbers for parcels in the county. Since this layer is based on the AddressLocationView it also requires that the compression job runs successfully. This layer is used by the Accela and Claris applications within Cabarrus County, and is also copied on a nightly basis by the City of Concord.

City of Concord Jobs

The City of Concord has several jobs that pull address and street centerline data out the cabarrusgis database and load it into the City of Concords GIS database. These processes are dependent on the nightly processes that Cabarrus County runs for accurate data.

10/25/2011